

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for mass producing carbon nanotubes, comprising:
 - synthesizing a plurality of carbon nanotubes to a first length on a plurality of synthesis sites carried by a first substrate;
 - interrupting the synthesis of the plurality of carbon nanotubes;
 - supporting a free end of each of the plurality of carbon nanotubes from a second substrate;
 - separating the plurality of synthesis sites from the first substrate; and
 - resuming the synthesis of the plurality of carbon nanotubes at the plurality of synthesis sites to lengthen the plurality of carbon nanotubes to a second length that is greater than the first length.
2. (Original) The method of claim 1 wherein supporting the free end comprises:
 - covering the plurality of synthesis sites and the plurality of carbon nanotubes with a layer having opposed first and second surfaces;
 - bonding the first surface of the layer to the second substrate; and
 - recessing the second surface of the layer to a depth sufficient to expose an interface between each of the plurality of carbon nanotubes and a corresponding one of the plurality of synthesis sites.
3. (Original) The method of claim 2 wherein each of the plurality of carbon nanotubes includes a leading tip, and recessing the layer comprises:
 - limiting the recessing of the layer such that the leading tip of each of the plurality of carbon nanotubes remains submerged in the layer.

4. (Original) The method of claim 1 wherein each of the plurality of synthesis sites includes a seed pad of a catalyst material capable of supporting the synthesis of carbon nanotubes.

5. (Original) The method of claim 4 wherein synthesizing the plurality of carbon nanotubes comprises:

supplying a reactant at an interface between the seed pad of each of the plurality of synthesis sites and the corresponding one of the plurality of carbon nanotubes.

6. (Original) The method of claim 5 interrupting the synthesis comprises:

discontinuing the supplying of the reactant to the interface.

7. (Original) The method of claim 5 wherein resuming the synthesis of the carbon nanotubes comprises:

supplying a reactant to the interface.

8. (Original) The method of claim 3 further comprising:

surrounding the seed pad of each of the plurality of synthesis sites with a spacer that prevents nanotube synthesis substantially parallel to a plane containing the first substrate.

9. (Original) The method of claim 1 wherein separating the plurality of synthesis sites from the first substrate comprises:

manipulating a release layer positioned between the first substrate and the plurality of synthesis sites to precipitate release of the first substrate.

10. (Original) The method of claim 1 further comprising:

preventing lateral nanotube synthesis in a horizontal plane containing the first substrate such that each of the plurality of carbon nanotubes has a substantially vertical orientation relative to the horizontal plane containing the first substrate.

11. (Original) The method of claim 10 wherein preventing lateral nanotube synthesis comprises:
surrounding each of the plurality of synthesis sites with a spacer that prohibits lateral nanotube synthesis.
12. (Original) The method of claim 1 wherein a single carbon nanotube is carried by each of the plurality of synthesis sites.
13. (Original) The method of claim 1 further comprising:
forming the plurality of synthesis sites on the first substrate.
14. (Original) The method of claim 1 wherein each of the plurality of synthesis sites is sized to support the synthesis of one of the plurality of carbon nanotubes.
15. (Original) The method of claim 1 wherein synthesizing the plurality of carbon nanotubes comprises:
performing a chemical vapor deposition process at the plurality of synthesis sites.
16. (Original) The method of claim 16 wherein each of the plurality of synthesis sites includes a seed pad of a catalyst material capable of supporting the synthesis of the plurality of carbon nanotubes.
17. (Original) The method of claim 16 wherein performing the chemical vapor deposition process comprises:
supplying a reactant to the seed pad that is catalyzed by the catalyst material to synthesize the plurality of carbon nanotubes.

18. (Original) The method of claim 1 wherein resuming the synthesis of the plurality of carbon nanotubes comprises:

performing a chemical vapor deposition process at the plurality of synthesis sites.

19. (Original) The method of claim 18 wherein each of the plurality of synthesis sites includes a seed pad of a catalyst material capable of supporting the synthesis of the plurality of carbon nanotubes.

20. (Original) The method of claim 19 wherein performing the chemical vapor deposition process comprises:

supplying a reactant to the seed pad that is catalyzed by the catalyst material to synthesize the plurality of carbon nanotubes.

21. (Original) The method of claim 1 wherein said plurality of carbon nanotubes are multi-wall carbon nanotubes.

22. (Original) The method of claim 1 wherein said plurality of carbon nanotubes have a substantially uniform length.

23. (Original) The method of claim 1 wherein supporting the free end comprises:

covering the plurality of synthesis sites and the plurality of carbon nanotubes with a first layer and a second layer;

bonding the second layer to the second substrate; and

removing the first layer selective to the second layer to a depth sufficient to expose the plurality of synthesis sites.

24. (Original) The method of claim 23 further comprising:

removing the first layer to a depth sufficient to expose a free end of each of the plurality of carbon nanotubes before the second layer is formed on the first layer, such that the free end of each of the plurality of carbon nanotubes is embedded in the second layer.

25. (Original) The method of claim 24 wherein removing the first layer shortens a length of at least one of the plurality of carbon nanotubes.

26-33. (Cancelled)